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The Efficacy of Peer-Assisted Learning Strategies (PALS) with Hispanic English Language Learners in the 2nd Grade

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Abstract

The present study examined the efficacy of a reading instruction, Peer Assisted Learning Strategies (PALS), for Hispanic English Language Learners (ELL). Currently, the literature indicates that there is a surge in ELL students, most commonly Spanish-speaking ELL students, in the United States. This increase in ELL population created a need for academic support as many of these students are historically academically behind their non-ELL peers due to the negative impact of lack of exposure to the English language and cultural differences. The PALS program is a class-wide reading intervention where students engage in reading activities to promote reading skills; and limited studies have shown PALS to be effective with ELL students. In this study, the PALS group was made of 15 2nd grade ELL students, which received Partner reading, while the control group consisted of 14 2nd grade regular education students, who received regular class wide reading instruction. Based on pre and post CBM data, results did not show a significant difference in reading fluency between the PALS group and the control group. However, results did indicate a significant reading improvement in pre-post CBM scores for those in the PALS condition, but not in the control condition. For participants in the control condition, a ceiling effect might have been a factor; i.e., because they scored higher on the pre-test than participants in the PALS condition, there was no room for growth. Given these results, in the current study, PALS efficacy for improving Spanish ELL students' reading fluency was inconclusive. The implication of the results and the possible impact of the COVID-19 pandemic are discussed.

The Efficacy of Peer-Assisted Learning Strategies (PALS) with Hispanic English Language Learners in the 2nd Grade

Introduction

The general purpose of this study was to examine the efficacy of a reading instruction, Partner Reading, for English Language Learners, particularly focusing on the Hispanic Spanish speaking population. About 70 percent of English Language Learners (ELLs) are Spanish speaking (Klingner, Boardman, Eppolito & Almanza Schonewise, 2012). ELLs are often described as a population of students within an educational environment, such as school, who have been identified as learning English as a second language (Dennaoui et al., 2016). These students commonly face many difficulties throughout their academic career. One major notable area of difficulty for this population involves literacy, for example, reading fluency (Center on Instruction, 2006). Researchers have explored the developmental trajectory of ELL students in comparison to their monolingual English peers using achievement tests. For instance, results of one study indicated that ELL students who were able to "catch up" with their peers, regarding English proficiency, had higher achievement scores and academic trajectory (Kieffer, 2011); while those with limited English proficiency were noted to struggle and had substantially lower achievement scores. According to National Center for Educational Statistics (NCES, 2017), the average reading score for 4th-grade ELL students was 37 points lower than the average score for their non-ELL peers. Although there are many evidence-based strategies for teaching reading fluency, e.g., Peer-Assisted Learning Strategies (Saenz, Fuchs, Fuchs, 2005), their efficacy for ELL students is not well examined, which the current research attempted to correct.

Literature Review

Definitions

Students whose primary language is not English and are still learning the English language have garnered many titles for various reasons. For example, English as a Second Language is a title related to school services, and Limited English Proficient (LEP) is used for monitoring the proficiency of students in the process of learning the English language. In this study, the term English Language Learners (ELL) is adopted, because these are students who have been identified as learning English as their second language in the public school system (Illinois State Board of Education, 2018), and thus, they are not proficient in the English language (Center Instruction, 2006). In this study, English Language Learning students (ELL students) is used. In the following paragraphs, the profile of these students and the challenges they face at home, the community, and school are summarized.

Profile of Spanish ELL Students

While there are many second languages spoken in the United States, the most spoken second language is Spanish. According to the US Census sampling (2017), by the year 2016, Hispanics numbered 57.5 million (17.9 percent) of the U.S. population. This growth was reflected by the increase in ELL student population from 14.1% to 25% for first through eighth grades during the same period. Moreover, the number of Spanish (Castilian) ELLs reached 3,790,949 (NCES, 2018). This influx of Spanish speaking students into the public school system presents an enormous need to provide proper services for these students to succeed. The questions that are not yet fully answered are the type of services ELL students need and how best to implement these services.

The current understanding is that emergent literacy begins at birth; and literacy is essential for school learning and life in general. Spanish speaking children have been exposed to literacy in Spanish that transfers to other languages, in this case English, because the mechanics of language are similar across languages (Sebastian- Galles et al., 2006; DeAnda et al., 2016). Thus, the home environment is critical in the early years. For instance, secure attachment appears to form not only the basis for many coping mechanisms, but also fosters language development (Yi, 2011). Research suggests that the family has a strong influence in the development of a language and in the case of ELL students, the manner they learn their native language (sometimes referred to as L1) serves as a guide towards developing the second language (L2). This can be seen early in development with preschoolers. It appears that preschoolers who demonstrate secure attachment were observed to be more responsive and more likely to be verbally expressive (Winsler, et al., 2014).

In multiple studies designed to assess the effects of parent reading to children at an early age, the authors concluded that when parents took an active role in reading to their children, those children showed more advanced skills in vocabulary development, language development and an overall spark in interest for reading (Teale, 1981; Phillips, Norris, & Anderson, 2008; Duran, et al., 2016). These skills help children to develop phonological awareness, alphabetical knowledge, and language structure. Each of these areas of literacy have been identified as important indicators of overall English literacy development in native speakers and ELL students (Ford, et al., 2012).

Once ELL students enter the school system, regardless of their age, it is possible that parents perceive school professionals, such as teachers, as experts who teach their children the English language (Rivera & Li, 2019). However, this perception may not be realized. The

support and services that are provided within a school environment can be limited due to resource and time constraints. Understandably, literacy is not the only area of academic concern; ELL students have been observed to have difficulties across other subject areas as well. According to the National Assessment of Educational Progress (NAEP), 51% of eighth grade ELL students are behind in both reading and math when compared to their monolingual counterparts (Fry, 2007). It is evident that the mastery of English plays a key role in overall academic success and achievement (Halle et al., 2012). On nationally standardized tests, ELL students scored on average 20 to 50 points below their monolingual counterparts in language arts as well as other subject content areas. However, an ELL student's performance on standardized tests might not indicate that there was a failure in English acquisition or subject areas, but rather that English serves as a barrier to instruction (Menken, 2010). Reading fluency and comprehension are both vital for all subject matters. In research that assessed the academic progress of ELL students based on a national sample of fourth grade students in 2005, 73% underperformed compared to their non-ELL peers (Fry, 2007). Without effective services, the projected outcome for ELL students is not positive. Polat, Hodge, and Schreiber (2016) assessed the differences between a national sample of ELL students in the fourth and eighth grade and their English-speaking peers. Results showed that ELL students in the fourth grade performed 29 points below their non-ELL peers. The effects of time revealed that ELL students would be 35 points below their non-ELL peers by the time they reach the eighth grade.

Given the continued academic underachievement of ELL students, the No Child Left Behind law mandated that schools track the yearly progress of ELL students and ensure that they receive evidence-based instructions from qualified teachers (Batt, 2008). This mandate required that ELL students take and pass an English proficiency test for assessing English acquisition in

addition to academic content exams, which could produce stress for teachers and students (Menken, 2010). However, those who supported the implementation of No Child Left Behind stressed the importance of having standards in place for all students, which they thought would lead schools to pay more attention to the academic progress of ELL students (Crawford, 2004).

In sum, the number of Spanish speaking ELL students in the public schools is growing, but school professionals may not be well equipped to successfully educate them as evidenced by ELL students' persistent under achievement. Further, various issues that affect emergent literacy, such as lack of exposure to print and parent involvement and acculturation stressors may compromise the early literacy of some ELL students, which schools need to understand and address. Lastly, the experiences of ELL students vary greatly compared to their monolingual peers concerning their sense of belonging in the school and self-efficacy due to language barriers.

School Experiences of ELL Students

Sense of Belonging. A student's sense of belonging is impacted by several factors; and even ELL students who can grasp the English conversational language still struggle with a sense of belonging in the classroom (Aukerman, 2007) due to their limited English proficiency. Students who have acquired conversational English tend to be misunderstood for being completely fluent in English. The ability to develop and speak informal English was coined by Jim Cummins in 1979 as Basic Interpersonal Communication Skills (BICS). He argued that this informal linguistic development occurs first and is more frequently used. Next, ELL students develop the linguistic skills that assist them in understanding and completing academic tasks known as Cognitive Academic Language Proficiency (CALP) (Aukerman, 2007). On average, for an ELL student to develop BICS, it takes about two years of exposure to the new language;

while developing CALP takes five to seven years on average (Aukerman, 2007). CALP is assumed to develop through social interactions from birth, but it also reflects the language acquired through schooling (Cummins, 2000). The introduction of BICS and CALP had positive outcomes, such as changing the pedagogical instruction and conception of ELL students. Through this perspective, educators can understand how learning a new language can interfere with scholastic accomplishments and recognize how important it is to develop the native language. This has caused a shift regarding developing language skills: instead of seeing English and Spanish as separate language skills, there is a shift to focusing on fostering development of the native language. This is argued to be rational, because CALP is developed in the native language and the knowledge is then transferred to and accumulated in the second language (Aukerman, 2007).

Further, Batt (2008) investigated teachers' perceptions of the greatest challenges they experienced when educating ELL students. One major area of concern for teachers working closely with ELL students was that many of their colleagues lack knowledge and understanding of diversity or multicultural education, which could affect the overall quality of instruction. However, some teachers may not acknowledge ELL students in a positive light, and they may likely associate ELL students' academic struggles to the lack of work ethic and familial support. These teacher attitudes are likely to impact how ELL students feel and maintain enthusiasm in the classroom. They are less likely to be praised and receive teacher affirmations, although it is understood that students who have meaningful relationships with their teachers are more motivated and have a sense of belonging (Madrid, 2011).

*Special Education Misclassification and Disproportionality***.** ELL students are often misclassified and placed in special education classes leading to disproportionality due to the

performance gap seen between ELL students and their monolingual counterparts (Vaughn, et al., 2006; Thompson, 2010). Disproportionality refers to the high number of children from linguistically or culturally diverse backgrounds identified as needing special education services (DeMatthews, Edwards, & Nelson, 2014). In comparison, disproportionality is not explicitly defined in the Individuals with Disabilities Education Act (IDEA), but it does mention the overidentification of children of minority background, that is, their over representation in special education (IDEA, 2004). As a result, ELL students are mislabeled or misidentified and placed in special education often facing a less rigorous curriculum, lower academic expectations, and stigmatization, -which can negatively impact access to socialize with academically able peers and post-secondary opportunities (Van Roekel, 2008). This issue has gained momentum, and some cite the increase in minority populations across the nation as the likely reason for misclassification cases (Ford, 2012). While there are various causes of misclassification, some researchers hypothesize that limited English proficiency is the reason why ELL students are often referred for special education consideration by their teachers or other school professionals (Thompson, 2010). This has spurred research to determine the cause of misclassification, and to solve the possible antecedents leading to misclassification. For instance, Copeland, Huaqing Qi, and Park (2006) investigated the relationship between student ethnicity and language proficiency status with the number and type of disability labels and ELL students' access to a least restrictive environment. The least restrictive environment indicates the maximum, yet appropriate level students are educated in regular education with peers without disabilities (IDEA, 2004; Carson, 2014). The study utilized a school district's special education database to identify the students who were receiving special education services. Results showed that most students were Hispanic (45.6%) and that a third of the students reported the use of a primary language that is not English

(35.9%). This disproportionality not only happens in special education placement, but also in disciplinary consequences (Sullivan, 2011).

It appears this misclassification is often based on the deficits seen in reading performance, although it is not easy to discriminate whether the deficits are because of a learning disability or due to the student needing to overcome the many hurdles of learning a new language. For example, according to the Illinois State Board of Education (2018), concerning English Language Learners, there must be sufficient data collected and analyzed in several different areas that can impact a student's academic achievement, language, and literacy development. Some exclusionary factors need to be considered for a student to meet the classification of a learning disability; that is, students who do not receive evidence-based and appropriate instruction in reading and math, and those with limited English proficiency (Illinois State Board of Education, 2018). However, even with these precautions, errors are evident due to potential oversight of the data. Although Federal legislatures have made efforts to address this issue and now require states to monitor any racial disproportionality in special education classrooms, the laws in place do not explicitly provide guidance on how to meet the educational needs of ELL students (Sullivan, 2011). It is not unusual for some schools to use English-Immersion programs, where all classroom instruction is in English with a strong focus on mainly developing English skills. While this program focuses on developing one language, there are other options for developing both the native and second language.

Classroom Instructions

Adjusting instruction to fit the needs of students is a challenging task that requires careful considerations from teachers. One method to ease the transition of learning a new language is modifying the student's academic program through explicit instruction and providing an

environment that supports as much enrichment as possible, namely Culturally Responsive Teaching, which considers a student's cultural reference, and Bilingual Instruction. An example of a Bilingual Instruction is a Transitional Bilingual Program, where students are taught in their native language in early childhood, but they gradually transition into all English-instruction. There are also two-way bilingual Immersion programs where students are simultaneously provided instruction in both the native and second language (Calhoon et al., 2007). A study conducted in 2010 compared the effectiveness and quality of instruction between English-immersion and transitional bilingual education for English and Spanish speaking students. In particular, the study set out to determine if there would be improvement in literacy skills with preschool children. The results of the study indicated that the students placed in the transitional bilingual education showed increased oral vocabulary and letter-word identification in both Spanish and English (Duran, Roseth, & Hoffman, 2010). The study also indicated that transitional bilingual programs are most effective in showing improvement in literacy skills.

Another factor that can determine English proficiency is the length of time the student has had exposure to English. Recent research showed that those exposed to English earlier were more likely to become proficient. Dennaoui et al. (2016) suggested that one important predictor for academic success is early proficiency in English. The study followed two groups of ELL students as in a longitudinal study that indicated the group of ELL students who were younger had strong English proficiency skills as well as increased academic language. The results of this study highlight the importance of reaching out to ELL students as early as possible. As they get older, the students are likely to miss learning opportunities and potentially struggle with academic language and literacy.

Outcomes for ELL Students

One of the areas of concern for ELL students is the potential outcomes of struggling to learn the English language while concurrently trying to master the expected curriculum. Unfortunately, one of the projected outcomes for ELL students is being retained: 46% of ELL students have been retained, which is significantly greater than their monolingual peers, 37% and is also known to contribute to school dropout (Kim, 2011). As of 2015, the graduation rate for ELL students nationally is at 65%, which is one the lowest rates and strikingly similar to the graduation rate of students with disabilities (Jimenez-Catellanos & Garcia, 2017). Dropping out of high school is another projected outcome for ELL students; currently, 25% of ELL students drop out. While there are various reasons for this, research suggests that academic under achievement and grade retention likely result in dropping out (Kim, 2011). This low graduation rate trend is not limited to high school. Roessingh and Douglas (2012) compared graduation rates of ELL students in universities with monolingual students and found a similar graduation rate of 61%. ELL students are one of the few ethnic minorities who may pursue college education but may not follow through and earn their degree (Pappamihiel & Moreno, 2011).

The final outcome for ELL students who are learning English while concurrently expected to master the subject matter presented in English are limited job opportunities. Retention, dropout, and lack of higher education all contribute to limited employment, underemployment, or unemployment, increasing the cycle of poverty. Based on the foregoing data, the public school appears to struggle to educate Spanish speaking ELL students, particularly, in basic literacy skills all ELL students need to acquire.

Reading is a hierarchical process that is comprised of several different components that are necessary for its mastery. These major components are referred to as the “The Big Five of

Reading," which can be broken into: phonemic awareness, phonics, vocabulary, fluency, and comprehension (Reading Panel, 2000; Pearson & Cervetti 2012). The goal for an individual beginning to read is to develop and master those first few building blocks that are vital for reading fluency and comprehension. Some have described the hierarchy to be building blocks that feed into the later processes, thus, mastery of the previous level is necessary before an individual can move on to the next. Reading fluency is a skilled task that requires an individual to be able to read text with accuracy and speed. Most researchers agree that fluency is a skilled task that takes practice to develop, but that can only be done depending on the development of word recognition accuracy and reading fluency. Common forms of practice that emphasize fluency is repeated reading, such as partner reading, repeated reading, and radio reading. Other forms of practice can emphasize an increase in reading engagement, such as silent reading or other intensive reading programs (Reading panel, 2000; Pearson & Cervetti 2012).

Reading comprehension is a complex cognitive process that is vital for academic success and has been defined as having a critical role for understanding text and integrating information in a strategic method to make connections with the text (Reading panel, 2000; Pearson & Cervetti 2012). Some of the methods that have been found to improve reading comprehension are vocabulary instruction, text comprehension instruction and teacher preparation and comprehension strategies.

PALS. Peer Assisted Learning Strategies (PALS) are evidence-based strategies designed to teach literacy skills. PALS are class-wide tutoring strategies that promote reading behaviors, fluency, and comprehension. The PALS implementation in the classroom is typically 35 minutes three times a week, and to avoid taking extra time or infringing on other subject areas, PALS can be substituted for regular classroom reading activities. This learning strategy has been used with

various individuals with multiple reading levels (low-, moderate- and high-achieving readers) and has been found to positively improve reading skills of those individuals (Fuchs and Fuchs, 2005). PALS is seen as an effective instructional strategy that requires students to be more actively engaged and participate while also providing students the opportunities to respond and receive feedback (Fuchs & Fuchs, 2005). A high-performing reader is typically paired with a lower-performing reader (Fuchs & Fuchs, 2006). The higher-performing reader models reading for the lower-performing student. This paired tutoring strategy is designed to increase instructional time in the classroom while also providing feedback, error correction, and to cover more content. The activities involved in PALS are partner reading, students take turns reading; retell, students tell what happened in the reading passage; and paragraph shrinking, summarizing the main ideas. These activities are detailed further in the procedure section under methods.

The first step in implementing PALS is matching struggling readers with higher performing (reading) students. To create this pair, teachers rank order all students in the class based on their reading proficiency (the highest performing student is on top of the list and the lowest performing students is at the bottom of the list). This list is then split in half to pair the highest performing student with the lowest performing student (Fuchs, Fuchs & Burish, 2000). Once all the pairs are established, the students are given a reading passage where they take turns reading, partner reading and tutoring. The teachers prepare the students through whole-class training and demonstration. This training session allows the teacher to take a tutor role and students reader role (McMaster, et al, 2008). Progress is frequently measured using curriculum-based measurement (CBM), a quick assessment with sound psychometric properties. CBM is further discussed under Measures.

PALS and Teacher Instruction. PALS differs from typical teacher-based reading instruction because it involves immediate feedback, provides incentives for students, and allows for effective use of time to expose students to more reading (Saenz, et al., 2006). Researchers argue that one of the reasons for the efficacy of PALS is that it allows for opportunities for students to receive information (such as, following along while the tutor reads), engage in reading (reading aloud), and lastly to make modifications to information (corrective feedback) (Long & Porter, 1985; Saenz et al., 2006). PALS differs from a typical teacher-based instruction in intensity because students can receive immediate feedback from other peers. While teacher instruction makes attempts to do one-on-one instruction with students, it may not be enough to help struggling readers who require more engagement.

PALS also uses incentives to keep track of points accumulated by the pairs of student groups. These points are given to the student by the teacher or by their partner for completing all activities correctly and for demonstrating good tutoring behavior (Fuchs & Fuchs, 2005). For example, a tutor can assign points to the reader for reading sentences or answering questions correctly, and likewise the reader may assign points to the tutor for demonstrating good behavior or listening intently (Fuchs, et al., 2000). It is up to teacher discretion to assign bonus points, such as "I like the way Bob and Joe are working together. Each of you gets an extra five bonus points!" However, the teacher should provide bonus points (reward) only for specific behaviors (Fuchs, & Mathes, 1991). The students are given an individual score sheet to tally their points, and by the end of the week, teams total their points. Teachers are advised to monitor score sheets to ensure that the points (data) are accurate (Fuchs & Mathes, 1991). The combination of incentives and self-progress monitoring (tallying points) is expected to result in higher reading performance (Amato-Zech, Hoff, & Doepke, 2006).

PALS is an instructional strategy that not only improves literacy but also establishes social connections. PALS is also a mentoring process that allows students to engage and socialize with one another. Creating these mentoring practices is likely to increase an ELL student's sense of belonging in the school and classroom due to the personal connections that are created. ELL students are likely be more invested in their academics because they are less likely to feel isolated due to the established relationships with teachers and peers (Alcocer & Martinez, 2017). Therefore, PALS was used as an intervention for ELL students in this study, and it is discussed in detail under Methods.

The underlying theoretical support for choosing PALS as an effective reading intervention with ELL Hispanic students lies within Vygotsky's sociocultural theory. In this theory, children are believed to be embedded into their social context and that children look up to older adults or more skilled peers for guidance (Steinberg et al. 2011). In this theoretical perspective, the child assumes an apprentice role while adults or other peers provide learning opportunities. Under Vygotsky's theory, cognitive development of an individual is the result of collaboration between the individual and the sociocultural setting; that is, learning occurs as a scaffolding process where other more knowledgeable individuals provide learning opportunities (Steinberg et al., 2011). A key concept to Vygotsky's theory is the Zone of Proximal Development where he suggests learning takes place. Within this zone are a series of activities or challenges that are too difficult for children to handle on their own. Learning occurs when skilled peers or adults assist the child accomplish those difficult tasks and thus creating learning opportunities for the child (Haider & Yasmin, 2015).

Statement of the Problem

With a surge of increase in ELL students, education and curriculum need to be modified to best fit their needs and promote learning. As discussed above, ELL students face more academic challenges compared to their monolingual peers (Ross & Begeny, 2011). ELL students struggle with learning the second language, and if instruction is given in a language they have not mastered, these students may feel left behind, or they are unable to keep up with the work. Overall, Hispanic ELL students are often behind in literacy when compared to their monolingual peers.

The purpose of this study was to increase reading fluency of Hispanic ELL students using PALS, a reading intervention that utilizes peer interaction and learning to promote reading fluency. While PALS has undergone extensive research on its use for reading skills, there is limited research that examined the effectiveness of PALS with younger Hispanic ELL students. As a result, the current study aimed to answer the following statements:

1. At post-test, participants in the PALS group would show higher skill level for reading fluency compared to the control group.

    Hypothesis: It was hypothesized that participants would gain skills in reading fluency and reading comprehension. Previous research has indicated that students who were placed in the PALS condition had significantly higher performance in reading fluency and reading comprehension (Fuchs & Fuchs, 2005; Calhoon, et al., 2007).

2. The implementation of PALS would improve the sense of belongingness for ELL students in the classroom.

    Hypothesis: It was hypothesized that participants would report improved social interactions and sense of belonging. PALS intervention has student pairs, and research indicates that the pairing opportunity provides ELL students with the possibility of

socially integrating into the classroom (Calhoon, et al, 2007). Recent research implies that the likely mechanism that motivates students to improve academically is the social connections that are established in the classroom (Alcocer & Martinez, 2017).

3. There would not be a significant difference between peer nomination and teacher nomination ratings to assess students' belongingness in the classroom.

Hypothesis: Although teacher nomination was deemed more accurate for assessing students' social integration in the classroom (Connolly & Doyle, 1981), other studies found no difference between teacher and fellow peer ratings (Landau, Miich & Whitten, 1984). A more recent study showed that teachers and peers rated popularity of students very similarly (Van den Berg, Lansu, & Cillessen, 2015). The current study attempts to examine if there is a significant difference observed between teacher and peer nomination.

Modification. In March 2020, the COVID-19 Pandemic shutdown daily functions. The Center for Disease Control (2021) required six feet apart social distancing, ventilation of indoor spaces, mask covering, and so on. As a result, most schools in the United States (including the research site for this study) adopted virtual learning to protect students and staff (Viner et al, 2020). This in turn necessitated two main modifications of the current study, presented below:

1. The study had to be conducted online (remote/virtual learning), not in person, using Zoom, the platform most school districts adopted for delivering virtual classes. There is limited research that examined the efficacy of PALS implemented virtually (Watts, Malliris & Billingham, 2015). However, Tsuei (2011) had explored the effects of PALS online for developing reading skills, peer interaction, and self-concept of native Chinese speaking students. In this study, the rate of learning of students in the Electronic

PALS group was compared with the control group of students who received face-to-face instruction. Results indicated that there was a significantly higher reading comprehension score for students who were randomly assigned to the Electronic PALS condition than those who received traditional, face to face, instruction.

2. Because the study had to be conducted online, PALS' effect on ELL students' sense of belonging, and whether teacher and peer nominations equally assess the sense of belonging of ELL students had to be removed. Thus, research questions two and three ("The implementation of PALS would improve the sense of belongingness for ELL students," and "There would not be a difference between peer nomination and teacher nomination ratings to assess students' sense of belongingness in the classroom") were removed. It is possible that the stress of COVID-19 Pandemic may contribute to some confounds. A few preliminary studies have suggested that COVID-19 Pandemic might have a negative impact on student's mental health due to social distancing (Golberstein, Wen, & Miller, 2020), particularly for students with limited resources (Kuhfeld et al., 2020) as some ELL students do.

Methods

Participants

For the current study, there were a total of 29 2nd grade students (one regular education classroom and the other a bilingual classroom) and their two teachers. Students from the bilingual classroom, who were instructed in both Spanish and English, were assigned to the PALS condition while students in the regular education classroom were assigned to the control condition. There were 15 students in the PALS condition, and 14 students in the control condition. One student from the PALS group was excluded from the intervention due to poor

internet connection, which prevented the student from accessing the virtual classroom during the intervention time. In the control group, three students were excluded from the data collection due to either poor internet connection or moving out of the district. The students placed in the control group received regular classroom, teacher-led, instruction and time for reading of their choice (the same amount of time as the experimental group). The students in the experimental group participated in the PALS activities during the intervention time. Since the students remained remote at this time, the teacher assigned the students textbooks to read via their online library collection. Participants of the study were from a school district at the primary researcher's internship site (located in a suburban grade school in Illinois). As mentioned before, the current study aimed to focus on Hispanic ELL students.

ELL identification was based on the Illinois state standard, which defines ELL students as "Any student whose home language is a language other than English" (Illinois State Board of Education, 2018). Criteria for identifying ELL students include if they were not born in the United States or their native language is not English. Students are also likely to fall into this category if they are Native Americans, come from an environment where their native language has a significant impact on English proficiency, come from an environment where English is not spoken, and have difficulties in the areas of speaking, reading, writing, and understanding English (Abedi, 2006).

In the state of Illinois, for students to be considered unable to perform schoolwork in English, they must score below 4.8 composite score on the age-appropriate Word-Class Instructional Design and Assessment (WIDA) test. A student must also score below 4.2 in the reading proficiency and the writing proficiency sections of the age appropriate WIDA test. These scores can vary from 1.0 to 6.0 and indicate the following: 1.0, entering; 2.0, beginning; 3.0,

developing; 4.0, Expanding; 5.0, Bridging; and 6.0, Reaching. Thus, students would also be classified as ELL if they receive a score below the "bridging" and "expanding" range (New "Proficiency" Definition, Illinois State Board of Education). Students who obtain higher scores would not be classified as ELL students that require additional supports or placement in a bilingual classroom.

Measures

EasyCBM, Student Demographic Questionnaire, and Teacher Demographic Questionnaire were used to assess the participants' reading skills prior to intervention (pre-test data) and at the end of the intervention (post-test data), students language experience, and teacher profile, respectively. Each is discussed below.

EasyCBM. EasyCBM is an online CBM assessment system that is commonly used across school districts in the U.S. as an ideal cost-effective measurement tool for student performance. EasyCBM was selected due to the online administration and modality, as well as being a cost-effective tool that many of the teachers at the research site were familiar with. EasyCBM was developed by educational researchers at the University of Oregon in collaboration with school district across the United States. It includes a variety of curriculum-based measures in early literacy oral reading fluency, vocabulary, and reading comprehension, as well as mathematics measures (Alonzo & Tindal 2010; Alonzo, 2016).

CBM is an assessment system used for universal screening of student academic skills and for tracking progress. CBM is also intended to measure effectiveness of teacher instruction by administering student probes (Appendix I). Results of the probes inform instruction, i.e., instruction is modified to target areas of need (Deno, 2003). CBM is reliable, standardized, and sensitive enough to detect small changes in performance (Graney, et al, 2010). A popular method

of reading CBM is "Words Correct per Minute," where students are asked to read aloud from a reading passage for one minute as the administrator tallies the errors made. The errors are omissions, substitutions, mispronunciation, or skipping lines. The data that are recorded are the number of words read correctly and the number of errors. Thus, total words read minus total number of errors read provide a score (Halle, et al., 2012). This creates benchmarking data that teachers can access to look at previous performance and make predictions about future performance.

Many studies have determined the validity and reliability of CBM for assessing student performance (Fuchs & Fuchs, 1992; McGlinchey & Hixson, 2004; Merino & Beckman, 2010). CBM reliability coefficients lie between 0.87 and 0.95, which explain how likely the measure is to produce stable and consistent results (McGlinchey & Hixson, 2004). In previous studies, the use of CBM with bilingual and ELL student population showed similar reliability estimates to the work of McGlinchey and Hixson (2004), and that CBM was sensitive for tracking changes in reading skills over time (Baker & Good, 1995; De Ramirez & Shapiro, 2006). As a result, CBM is used as a method of collecting Benchmarking data throughout the year for tracking academic progress via platform such as EasyCBM and Aimsweb.

The primary researcher administered EasyCBM reading probes to each participant in the PALS and Control conditions before the intervention began (pre-test) and at the end of the study (post-test). The results were used to answer the research question.

Student Demographic Questionnaire. The demographic questionnaire was designed for parents to identify the language spoken at home, language fluency, gender of the child, and so on. This questionnaire was available in English and Spanish (Appendix E and Appendix F).

Teacher Demographic Questionnaire. This questionnaire sought such information as teacher's level of education, years of experience teaching, certification for teaching ELL students, and so on (Appendix H).

Procedure

Once the Institutional Board at Eastern Illinois University and the school district (the research site) approved the study, teacher recruitment began. Teachers were recruited by placing flyers in their mailbox as well as sending follow up emails. A virtual meeting was held with second and third grade teachers who were interested in volunteering for the study. The virtual meeting was held to inform all interested participants the purpose of the study, the benefits, and procedures. Teacher consent was collected at the end of the meeting if they agreed to participate (Appendix G). Shortly after, informational letter (Appendix A and B) and parent consent form (Appendix C and D) were emailed to parents. To make sure parents understood what they were consenting to, all documents were written both in English and in Spanish.

To assure accuracy of translation, back translation was conducted. In back translation, at least two individuals proficient both in English and in Spanish are involved. In this study, the original English version of texts were translated into Spanish by the primary researcher, who is proficient in both English and Spanish. The Spanish texts were then back translated into English by another bilingual volunteer, who is proficient in English and in Spanish. The original English texts and the back-translated English texts were compared to ensure that no discrepancies existed (Brislin, 1970; Douglas & Craig, 2007)**.**

Confidentiality was ensured by assigning a special coding system to the teachers and students that only the primary researcher had access to. For example, P2 indicated a 2nd grade teacher, while 1-P2 or 2-P2 indicated the student and teacher pair. The same coding method was

used for the Control group, C2 indicated a 2nd grade teacher, while 1-C2 or 2-C2 indicated the student teacher pair. The coded teacher and student list along with the data that were obtained, and demographic information are stored in a secure password-protected program that only the primary researcher can access. Parents had the right to decline participation in the study. As the study involves pairing ELL students with classmates, consent was sought for all students in the classroom. Lastly, verbal assent was sought from the students in the classroom to encourage participation in the study.

Teacher Training. It is recommended that teachers receive training on the implementation of PALS programs in the classroom with a one-day training session with an estimated duration of three hours. However, to adhere to COVID-19 safety behavioral guidelines, all meetings were held virtually. To accommodate the teacher, instead of a one-day three-hour long training, three one-hour long training and informational sessions were held within one week. During the training session, the primary researcher modeled and consulted with the teacher about questions and concerns regarding PALS implementation in the classroom (McMaster, et al., 2008). The PALS teacher manual was used to provide detailed systematic instruction on implementation (Calhoon et al., 2007). The manual includes procedures, such as detailed steps in student training, appropriate modeling, the use of prompts, implementing and monitoring a point system in the classroom, and practice rounds with the students and teacher in the classroom. The training period with the students is advised to take place within 12 weeks following the instructions provided from the PALS teacher Manual (McMaster, et al., 2008). This is important to ensure that the intervention is introduced and implemented with fidelity.

For the current study, student training sessions occurred every day and was completed within 12 days. During the training sessions, students were reinforced for appropriately using

Zoom, e.g., staying muted when others are speaking to reduce echoes and using appropriate button functions. Students were also instructed on how to access the reading materials online. The student training sessions were observed by the primary researcher to ensure the teacher was following procedures, and to assist with any modeling or demonstrations, if necessary.

Student Pairing. Following training, the teacher created a list of higher achieving readers (referred to as tutors from here on) and lower achieving readers in the classroom. To ensure that students were matched appropriately, the teacher was instructed to split the list in half and pair the highest achieving reader with the first-most student (highest achieving) from the lower-achieving student list. This process was continued to pair up all the students in the classroom. If students were absent, pairs were formed from students who did not have partners present. If the classroom had an even-number of students, pairs of twos was utilized. However, if the classroom had an odd number of students, it was advised to create triad groups as needed, but roles would be changed so that all students had the opportunity to practice each of the reading activities (Fuchs & Mathes, 1991). If a student did not wish to participate, the student could move to a different virtual bilingual classroom or complete an individual reading activity. The PALS reading pairs, tutor and tutee, remained the same, unless a partner was absent, or the pair was incompatible.

PALS Implementation. After the classroom was trained on the PALS procedure, PALS was implemented five days a week for eight weeks. Although each PALS intervention session should last 35 minutes (Fuchs & Fuchs, 2005), in the current study, the participating teacher agreed only to 20 minutes a day. Given the reduced instruction time, 20 minutes per session instead of 35 minutes, participants in the current study engaged in Partner Reading and Retell (fluency and comprehension tasks).

PALS student roles. The tutor (higher-achieving reader) and the tutee (lower achieving reader) assumed specific roles. As trained, the tutor provided proper corrective prompts when an error was made by the tutee. Typically, the tutor engaged in the reading activities first to model appropriate reading and reading strategies. Then, the tutee engaged in active practice in the presented materials, such as paying attention to error corrections, listening to the tutor or looking over source materials (Fuchs & Mathes, 1991). The *Partner Reading* was the first activity where each student read aloud for five minutes with the high-achieving reader, the tutor, reading first to model appropriate reading. The lower achieving student, the tutee, during this process observed and then followed by rereading aloud with the other student serving as a tutor. This allowed the tutor to pay attention to errors and to prompt the reader to make appropriate corrections. For example, whenever the reader made an error, the tutor would respond with "check it again", or if the reader struggled with a word for longer than three seconds, the tutor prompted the reader to attempt to say the word. If the reader failed to say the word, then the tutor said, "That word is ____," and asked, "What Word?" Finally, the tutor provided the tutee positive feedback, such as "good job", when the word is said correctly (Fuchs, et al., 2000). This activity typically lasted approximately ten minutes where each reader was given five minutes to read the passage.

The second activity was *retelling,* where students retell to their respective partners what occurred in the story or passage in their own words. The lower-performing student could earn up to 10 points for correctly retelling the story and including all relevant information from the passage. This activity lasted for approximately two minutes (Fuchs, et al., 2000). It was important to include the comprehension task, *retell,* because empirical studies show positive correlation between reading fluency and reading comprehension (Fuchs & Fuchs. 2005; Walczynk & Grittith-Ross, 2007; Lauda & Gutherie, 2008). It appears that reading fluency and

reading comprehension have a bidirectional relationship, intervention in one (reading fluency or reading comprehension) results in gains in both skills for new readers and struggling readers (Klauda & Gutherie, 2008).

Their classroom teacher assigned the students materials to read via Reading A-Z, an online reading platform with various short stories. In addition, the teacher provided the students virtual classroom materials that matched their current reading level. Students were assigned to a "breakout room," a feature offered in Zoom. In the breakout rooms, the pair carried out all reading activities without the audio or visual interference of their other classmates. The classroom teacher and researcher took turns observing the breakout rooms to ensure that all students were following directions and to also answer questions. All participating students had the opportunity to earn points for completing the tasks and for working well with their partners. These points were assigned digitally with ClassDojo, an online system that was used in the school district. The distribution of points was left to the discretion of the classroom teacher, who administered the points when students followed directions. These points were used to earn prizes for additional time playing educational videos or games via ClassDojo. Students also had the opportunity to create and customize a "digital card" to be shared with their families praising the students' hard work and effort.

The primary researcher completed integrity checks once a week in the classroom where PALS was implemented for the duration of the study (Appendix K). During the integrity checks, the researcher ensured the virtual PALS program was implemented appropriately and answered teacher or student questions.

The control group received teacher led class-wide reading instruction for 20 minutes five days a week for eight weeks. During this time, the students in the control group used "Raz-Kids"

an online interactive reading system. This system provides teachers with leveled reading materials that meet the individual needs of all the students in the classroom (Roskos, Brueck & Widman, 2009). The online system provides associated lesson plans for each reading material assigned, and covers various reading topics, such as phonetics, vocabulary, grammar, reading fluency and reading comprehension skills (Healy, 2015). These students were assigned online reading materials by their teacher as a whole classroom activity where students were asked to read aloud, and answer questions based on the lesson plan and reading materials.

Results

Descriptive statistics was used to analyze the student demographic information. To determine differences between groups, a chi square analyses corrected for continuity (for both nominal and ordinal data) was performed for gender, number of years in the U.S., the number of languages spoken at home, the primary spoken language, students who read every day, and so on.

Results indicated no significant difference regarding gender, number of languages spoken, and if the students read daily, as seen in Table 1. At an alpha level of 0.05, results indicated that there was a significant relationship between groups and primary language spoken, $p=0.001$, Cramer's V=0.65. In other words, Spanish was the primary language for a significant number of families in the PALS condition. To assess if there were any significant differences between the PALS and Control groups for number of years living in the U.S., an independent t-test was conducted. At an alpha level of 0.05, results indicated that there was a significant difference in the number of years living in the US between the PALS group (M=9.93 SD=2.40) and the control group (M=12.14 SD=2.63), t (27) = -2.36, p= 0.02. The families of the PALS group reported living in the United States fewer years compared to those in the control group.

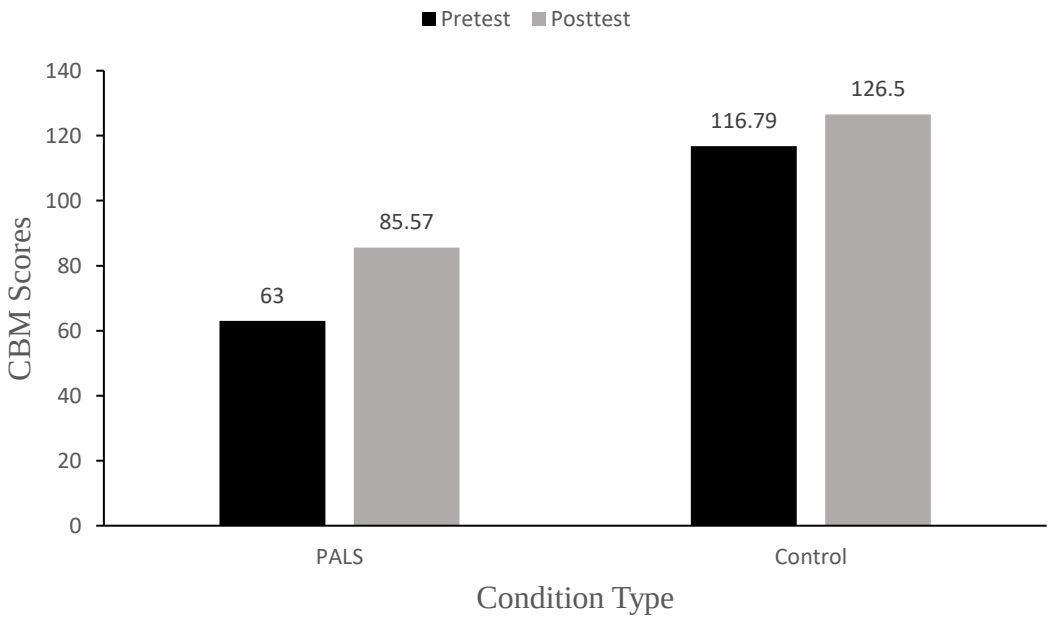
The teacher demographic data showed the two teachers were similar, both woman with a bachelor's degree, and fluent in Spanish. The teacher in the PALS condition was a new teacher, and had bilingual and ELL certification training, while the teacher in the control condition had no bilingual or ELL certification and she has been teaching for 14 years.

To answer the research question, the implementation of PALS would increase Hispanic ELL students' reading skills compared to teacher-led class-wide reading instruction, first, the initial reading fluency skills of all participants were assessed using EasyCBM to determine if any preliminary differences between the PALS and control conditions existed (pre-test CBM scores). A two-way mixed factorial analysis of variance was conducted to examine the results on the CBM scores (for the within-subjects factor), for the two group conditions (PALS and control) for all the students (for the between-subjects factor). Results showed that there was no significant interaction between the CBM scores (Pre-test and Post-test) and condition type (PALS or Control), F (2,54) = 2.38, p = 0.10. This is likely due to the small sample size that impacted the statistical power. Regardless of condition type, there was no significant differences. However, there was a significant effect of CBM scores, F (1,54) = 14.26, p<0.001. As a result, two separate t-tests for dependent means were conducted on the condition type (PALS and Control) and their CBM scores (Pre-test and Post-test). At an alpha level of 0.05, results indicated that there was a significant difference in CBM scores for the PALS condition, pre-test scores (M = 63.00 SD = 30.68) and post-test scores (M = 85.87 SD = 37.48), t (14) = -4.99, p<0.001 (see Figure 1 below). These results indicated there was a significant improvement in scores for those in the PALS condition. Pre-post CBM data showed no significant change for the control group at an alpha level of 0.05, t (13) = -1.54, p = 0.15. However, these results are likely due to the initial

differences in reading skills observed between the PALS and control group. Those in the control group had higher CBM scores and results indicated no significance likely due to a ceiling effect.

Figure 1.

Pre-Post CBM Data Between Treatment and Control groups



Note: Average classroom CBM scores for Pre-Post test results for both the experimental and control conditions.

Discussion

The purpose of the study was to investigate the effects of PALS, a reading intervention, on Hispanic ELL students reading skills in the second grade in person classroom. However, due to the environmental impact of COVID-19 pandemic, and following the safety guidelines, the intervention was conducted virtually. Results of the study indicated the hypothesis that PALS reading intervention would increase ELL students reading skills was not supported, despite a notable increase between pre and post test scores. At the start of the intervention, the overall classroom pre-test average score for the bilingual classroom, as measure by Words Correct per

minute, was 63 words. By the end of the intervention, the classroom post-test average score increased to 85 words correct per minute, demonstrating that the students who received the intervention benefited from it. On an average, a typical second grade student reads approximately close to 90 words correct per minute (Fluency Instruction, n.d.). However, the range is expected to fall between 80-120 words correct per minute (Morris, 2013).

The literature supports and demonstrates PALS' efficacy for increasing reading skills (Fuchs & Fuchs, 2005; Calhoon, et al., 2007; Watson 2015). It is possible the study was affected by the virtual setting due to the COVID-19 pandemic. For example, the study was implemented for 20 minutes a day, five days a week, for eight weeks, instead of 35 minutes long, three times a week for 20 weeks as originally suggested by Fuchs and Fuchs (2005). In the original study, students received a total of 105 minutes of intervention each week verses 100 minutes of intervention each week in the current study, which was a small difference. However, because of the duration, a total of eight weeks instead of 20 weeks, students in the current study received a total of 13 hours of instruction while those in the original study received 25 hours of instruction, a loss of 12 hours instruction for participants in the current study. The decrease in the duration of the intervention likely impacted the results of the study. Furthermore, there was also an initial difference in pre-test reading scores between the two groups showing differences in the reading skills of the two classrooms. Those in the control group had higher pre-test scores than the PALS group likely because they have been more exposed to the English language, their parents reported living in the U.S. longer than participants in the PALS group. It is possible this contributed to limited growth for students in the control group due to a ceiling effect. Nonetheless, at post-test, those in the PALS condition showed a significant increase compared to the control group. Although, the control group showed some growth on post-test scores, it was

not significant. Given that students in the PALS group started behind, the growth they showed may suggest the potential effectiveness of PALS for ELL students. However, it is difficult to attribute this increase to PALS intervention for two reasons: Firstly, there was a difference between the two groups at pretest; secondly, although not significant, students in the control group also showed some growth at post-test.

In addition, in the original PALS procedure, student pairs engaged in four reading activities: Partner reading, retelling, paragraph shrinking, and prediction relay. However, in the current study, the students in the experimental condition performed only the first two activities: partner reading and retell. This was done to adhere to the scheduling constraints of the classroom teacher and the classroom schedule that was severely impacted by remote learning due to the COVID-19 pandemic. These changes might also have undermined the true potential of the effectiveness of PALS intervention for ELL students.

It would have been informative to examine if PALS training had improved ELL students' reading fluency on school assessments, such as CBM benchmarking or MAP data. MAP, Measures of Academic Performance, allows frequent use to measure academic achievement in reading, language, and math. The MAP assessment is a computerized test that makes adjustment based on student performance. For example, when a student makes an error, an easier version of the question is provided until the student reaches mastery level (Merino & Beckman, 2010). CBM benchmarking is typically performed three times a year in September, January, and May to monitor student progress (Mesmer & Mesmer, 2008; Ditkowsky & Koonce, 2010). Due to COVID-19 pandemic, the school district where the study was conducted suspended collecting both CBM benchmarking and MAP data.

Results of the study might have been impacted by technological difficulties. Some of the students had difficulty getting sufficient internet access to join their classes. For example, some students were kicked out of the Zoom group due to poor internet connections and lost time trying to catch up with their partner. If one partner were unable to rejoin the class, the other partner would join a different group (a group of three). Some researchers had reported similar problems. Harris and Jones (2020) investigated internet connection availability for students across the US during COVID-19 pandemic. Results indicated that 15% of United State households did not have readily available internet connection and that 35% of families did not have access to high-speed internet (Harris & Jones, 2020). This issue was clearly observed during the implementation of the intervention, and it was also an identified concern for the school district. In the PALS condition, one student was excluded from the intervention due to the severity of internet connectivity issues. The student was either unable to fully join due to audio or video problems, or experienced significant lag to benefit from the intervention. Similarly, one student from the control group was excluded from data collection due to poor internet connectivity issues that impaired the process.

Finally, it is interesting to note what the outcome of the study would be if there were more teacher volunteers to choose from. Teachers seemed stressed; they needed to adjust their lessons consistently to fit remote teaching and still meet all students' instructional needs. (Beteille et al., 2020; MacIntyre, Gregersen & Mercer, 2020). Thus, only one bilingual teacher in her first-year teaching volunteered to implement PALS. The teacher for the control group was a 14-year veteran teacher.

Limitations. The main limitation of the study is that it is not clear whether PALS intervention had an impact on ELL students' reading fluency because of unforeseen

circumstances. As discussed above, COVID-19 Pandemic affected recruitment of teachers, the length of intervention, and the type of intervention. Only one teacher volunteered for the PALS condition, and this teacher committed to only 20 minutes session five times a week for eight weeks. In addition, in the current study participants engaged in Partner reading and retelling; paragraph shrinking and prediction relay were eliminated due to time constraints. It is important that researchers in the future correct these limitations. Further, research is needed to determine PALS's effectiveness when implemented on online format. In other words, researchers need to examine the efficacy of PALS with ELL students by comparing PALS online implementation to in-person implementation, and control group using the original protocol. That is, PALS is implemented for 35 minutes a session, three times a week for 20 weeks; and the tasks include Partner reading, retelling, paragraph shrinking, and prediction relay.

Practical Implications. While the results of the current study are inconsistent with previous research outcomes, some implications can be made about continuing to use PALS with ELL students. Previous research indicates that PALS reading intervention is a valid reading intervention that has demonstrated growth in reading skills in students (Fuchs & Fuchs, 2005; McMaster, Fuchs & Fuchs, 2006; McMaster et al., 2008). Results of the current study were encouraging, there was an overall growth in performance among ELL students in the experimental condition based on pre-post CBM reading data. While research continues, it is evident that PALS is a sound alternative for reading instruction teachers can use.

Secondly, schools must be cognizant of the difficulties some students face accessing online learning. Although this was not central to the purpose of the study, because the study had to be modified for online delivery due to COVID-19 pandemic, issues with internet connections

became evident. When students cannot access online learning, their education is compromised, and schools are not serving all students.

In conclusion, while there are some previous studies that have implemented PALS interventions, none have focused on its use with young bilingual or ELL students as the current study. Early intervention is critical for all children, but particularly for ELL students. Exposure to the English language, home environment that promotes reading skills early, and teacher instruction (Batt, 2008; Ford et al., 2012) are important conditions for learning the English language. For some ELL students, school is the only place they can learn English; and, when they do not have a sound grasp of the English language, it serves as a barrier to their academic achievement (Menken, 2010) and long-term life outcomes. Thus, studies that focus on ELL students' reading fluency in early elementary school are important and needed.

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Table 1

Student Demographic Information

Variable	PALS *n*= 15 *n (%)*	Control *n*= 14*n (%)*	x^2		*Cramer's V*	*p*
Gender			1.007	(1)	0.18	0.32
Male	8 (53%)	10 (71%)				
Female	7 (47%)	4 (29%)				
Number of Languages Spoken			0.840	(1)	0.17	0.35
1	4 (27%)	6 (43%)				
2	11 (73%)	8 (57%)				
Primary Language Spoken					0.65	0.001
English	6 (40%)	14 (100%)				
Spanish	9 (60%)	0 (0%)				
Reads Daily			0.56		0.44	0.81
Yes	9 (60%)	9 (64%)				
No	6 (40%)	5 (36%)				
	M	***(SD)***	***M***	***(SD)***	***t***	***(df)***		***p***
Years in U.S.	**9.93**	**2.40**	**12.14**	**2.63**	**-2.36**	**(27)**		**0.02**

*Note. *p<0.05,*

Appendix A

Parent Letter (English)

Dear Parents,

My name is Sonia Duran and I am a School Psychology Graduate Student and Intern at DuPage School District #45. I am writing to inform you that I will be conducting a research project on effective reading strategies, as a partial requirement for completing the Specialist in School Psychology degree at Eastern Illinois University. I am asking for your assistance to meet my educational goal, because I strongly believe that students will benefit from the type of instruction I am proposing.

For this research, some second-grade classrooms will receive an evidence-based (found to be effective) reading instruction method called Peer-Assisted Learning Strategies (PALS) program. With this Program, the students work in pairs to practice their reading under the supervision of the teacher. Previous research has shown that this program provides students with more opportunities for reading practice than typical reading instruction and enhances their reading skills through helping one another. This program has also been shown to improve students' relationships with their peers more than typical reading instruction.

In order to measure the program's effectiveness for teaching reading, the researcher will need access to the students' progress monitoring data (data that are normally collected during the school year to make sure students are on track). And, in order to measure PALS' effectiveness for improving peer relationships, the teachers and peers will be asked to rank the students in the classroom based on their sociability. All data will be completely confidential by using numbers instead of names, and no one will be allowed access to the data other than the researcher.

If you are willing to allow your child to participate in this study, please sign the attached consent form and demographic information and return it via email. Another option is to reply to the email confirming your participation and your child's participation in the study. For confidentiality reasons, please forward the completed forms to my district email. The researcher will then collect all information via secured email. Once again, no identifying information about you or your child will be released, only data will be reported.

Please be aware that participation in this study is voluntary. If you have questions, please contact me (sduran@dupage88.net or 630-903-1238), or my thesis advisor, Dr. Assege HaileMariam, Psychology professor at Eastern Illinois University (ahailemariam@eiu.edu or 217-581-2127).

Thank you for your contribution to research and participation in advancing knowledge.

Sonia Duran

School Psychology Intern

Note: Please keep this letter for your records.

Appendix B

Parent Letter (Spanish)

Estimados padres de familia:

Me llamo Sonia Duran, y soy practicante y estudiante del programa de Maestría en Psicologia Escolar en el distrito escolar de DuPage #45. Les escribo para dejarles saber que voy a conducir un proyecto de investigación sobre estrategias eficaces para ensenar la lectura, como parte de mis requisitos para la carrera de Especialista en Psicologia Escolar en la Universidad de Eastern Illinois. Les pido su asistencia a cumplir con mis metas educativas, porque creo que los estudiantes se beneficiaran del tipo de enseñanza que propongo.

Para esto proyecto, algunas salas de segundo grado recibirán lecciones usando una metodología cuya eficacia ha sido demostrada con evidencia, que se llama Estrategias de Aprendizaje con la Ayuda de Compañeros ("Peer-Assisted Learning Strategies" o PALS por sus siglas en ingles). Con este programa, los estudiantes trabajan en parejas para practicar su lectura bajo la supervisión del maestro. La investigación anterior ha demostrado que este programa les provee a los estudiantes más oportunidades para practicar su lectura que un método típico de enseñanza, y enriquece su habilidad en la lectura al ayudarse el uno al otro. También se ha demostrado que este programa mejora las relaciones entre los compañeros de clase más que un método típico de enseñanza.

Para medir la eficacia del programa en la enseñanza de la lectura, la investigadora necesita acceso a los datos que se usan para examinar el progreso del estudiante (datos que normalmente se recogen durante el año escolar para asegurar que los estudiantes están cumpliendo con las metas establecidas). Para medir la eficacia de PALS para mejorar las relaciones entre los compañeros de clase, a los maestros y compañeros se les pedirán que evalúen a cada estudiante en la clase a base de su sociabilidad. Todos los datos serán totalmente confidenciales porque se usarán números en vez de nombres, y además de la investigadora, nadie más tendrá acceso a los datos.

Si usted está dispuesto a darle permiso a su hijo o hija para participar en este estudio, por favor firme el permiso adjunto y la información demográfica, y mándelos por correo electrónico. Otra opción es responder al correo electrónico que se les ha mandado con su permiso para participar y permiso para dejar su hijo o hija participar. Por razones confidencialidad, por favor manden sus respuestas a mi correo electrónico del distrito escolar. La investigadora va a colectar toda la información por correo electrónico que está asegurado. Repito, ninguna información que pudiera identificar ni a usted ni a su hijo será revelada, y solo se reportaran datos.

Recuerde que su participación en ese estudio es voluntaria. Si tiene preguntas, por favor contácteme en Inglés o Español (sduran@dupage88.net o al 630-903-1238), o a mi directora de tesis solamente en Inglés, Dra. Assege HaileMariam, profesora de Psicologia en la Universidad de Eastern Illinois (Ahailemariam@eiu.edu o al 217-581-2127).

Muchas gracias por su participación en esta investigación y en el progreso del estudio.

Atentamente,

Sonia Duran

Estudiante y Practicante del Programa de Maestría en Psicologia Escolar

P.D. Por favor, guarde una copia de esta carta para sus archivos.

Appendix C

Parent Consent Form

The effectiveness of Peer-Assisted Learning Strategies
You are invited to participate in a research project conducted by Sonia Duran who is completing her internship in school psychology at DuPage School District #45. The purpose of this research project is to identify an effective method for teaching reading in the third and second grade.

If you agree to volunteer to participate in this study, you will be asked to:

- **Allow your child to participate in the PALS program.**
- **Allow access to your child's reading progress monitoring data.**
- **Complete the "student Demographic Information" form, which will take you approximately five minutes to complete.**

Also, please know the following:

- **There are no risks involved; in fact, previous research has shown this program to be beneficial for both reading and social relationship improvement.**
- **All information will remain confidential with regard to you and your child's identity.**
- **Participation in this project is voluntary, not a requirement, and you can withdraw at any time without penalty.**
- **You will contribute to research on reading success.**

Please understand that if you have questions about this study, you may call or write to use:

Dr. Assege HaileMariam (217-581-2127)
Eastern Illinois University
600 Lincoln HWY
Charleston, IL 61920

Sonia Duran (630-903-1238)
223 E. Streamwood blvd.
Streamwood, IL 60107

Further, the Institutional Review Board (IRB) has reviewed and approved this study. However, if you have any questions or concerns about the treatment of human participants in this study, you may call or write:

Institutional Review Board
Eastern Illinois University
600 Lincoln Ave.
Charleston, IL 61920
Telephone: (217) 581-8576, Email: eiuirb@www.eiu.edu

By signing below, I have given permission for my child to participate in this study.

Parents Name (Please Print):_____

Students Name:_____

_____

Parent Signature Date

Appendix D

Formulario de Consentimiento Parental

La eficacia de Estrategias de Aprendizaje con la ayuda de Compañeros
("Peer-Assisted Learning Strategies" o PALS, por su siglas en ingles)
Usted está invitado a participar en un proyecto de investigación llevado a cabo por Sonia Duran, una practicante en Psicologia escolar en el distrito escolar de DuPage #45. El objetivo de este proyecto de investigaci6n es identificar un método eficaz de la enseñanza de la lectura en el 3er y segundo grado.
Si usted acepta ser voluntario para participar en este estudio, se le pedirá a usted que:

- **Le de permiso a su hijo de participar en el programa PALS**
- **Permita acceso a los datos que se usan para examinar el progreso de su hijo**
- **Llene el formulario "información demográfica del estudiante," lo cual le llevara aproximadamente 5 minutos para hacer**

también, por favor preste atención a lo siguiente:

- **No hay ningún riesgo en este estudio; de hecho, la investigación previa ha demostrado que este programa es beneficioso para la lectura asi como para las relaciones sociales**
- **Toda la información será confidencial con respecto a la identidad de su hijo y la suya**
- **La participación en este proyecto es voluntaria, no obligada, y usted puede retirar su participación en cualquier momento sin ningún castigo o daño académico**
- **Usted contribuirá a la investigación sobre el éxito en la lectura**

Recuerde por favor que si tiene preguntas sobre este estudio, puede llamamos o escribimos a:

Dra. Assege HaileMariam (217-581-2127)
Eastern Illinois University
Department of Psychology
600 Lincoln HWY Charleston, IL 61920

Sonia Duran (630-903-1238)
223 E. Streamwood Blvd
Streamwood, IL 60107

Además, la Junta de Revisión Institucional ("Institutional Review Board," o IRB por sus siglas en inglés) ha revisado y aprobado este estudio. Sin embargo, si tiene preguntas o dudas sobre el tratamiento de los seres humanos participantes en este estudio, puede contactar al:

Institutional Review Board
Eastern Illinois University
600 Lincoln Ave.
Charleston, IL 61920
Telephone: (217) 581-8576 Email: eiuirb@www.eiu.edu

Al firmar a continuación, he dado permiso para que mi hijo/a participe en este estudio.

Nombre del Padre: _____

Nombre del estudiante: _____

_____

Firma del padre Fecha

Appendix E

Student Demographic Questionnaire (English)

To be completed by Parents

Please give us some information about your child to help us understand his/her learning needs.

Student's name: _____

1. Gender (please circle): Male Female

2. Ethnicity (please circle):

African American Asian Caucasian

Hispanic Pacific Islander Other (write in):_____

3. Number of Years Living in the U.S, if applicable (please write):_____

4. Types of languages spoken at home (e.g., Spanish and English) (please write all of them):

_____

5. The primary home language (the language that is most often spoken at home) is (please write):

_____

6. My child is fluent in his/her primary language. (Please circle one): Yes No

7. My child reads every day at home (please circle one): Yes No

Appendix F

Student Demographic Questionnaire (Spanish)

Información demográfica del estudiante

Para ser completado por los padres

Por favor denos información sobre sobre su hijo/hija para ayudarnos a comprender sus necesidades de aprendizaje.

Nombre del estudiante: _____

1. Sexo (poner un círculo): Varón Hembra

2. Etnicidad (poner un círculo):

Afro-Americano Asiático Blanco

Hispano isleño del Pacifico Otro (indicar):_____

3. Cuantos años que ha vivido en los Estados Unidos, si se aplica (escribir, por favor):_____

4. Cuantas lenguas que se hablan en el hogar (por ejemplo, español e inglés)

(escribir, por favor):_____

5. El idioma principal que se usa en el hogar (la lengua que se habla con más frecuencia en la casa) es (por favor escribir):_____

6. Mi hijo/a puede leer con fluidez en su idioma principal? (Poner un circulo): Si No

7. Mi hijo/a lee en casa todos los días (poner un circulo): Si No

Appendix G

Teacher consent form

You are invited to participate in a research project conducted by Sonia Duran who is completing her internship in School Psychology at DuPage School District #45. The purpose of this research project is to identify an effective method for teaching reading in the third and second grade. As you know, reading is an important skill for school success.

If you volunteer to participate in this study, you will be asked to:

- **Complete demographic information, which will take you about 5 minutes, and**
- **Agree to implement PALS program to all children in the classroom, if your class is PALS condition, or continue the regular reading instruction, if your class is the control group, and**
- **Agree for the researcher to complete integrity check periodically**

Also, please know the following:

- **There are no risks involved**
- **All information will remain confidential with regard to you as teacher and your students,**
- **Participation in this project is voluntary, not a requirement, and you can withdraw at any time without penalty, and**
- **You will immensely contribute to knowledge.**

Please understand that if you have questions or concerns about this project you may call or write to use:

Dr. Assege HaileMariam (217-581-2127)
Eastern Illinois University
600 Lincoln HWY
Charleston, IL 61920

Sonia Duran (630-903-1238)
223 E. Streamwood blvd.
Streamwood, IL 60107

Further, the Institutional Review Board (IRB) has reviewed and approved this study. However, if you have any questions or concerns about the treatment of human participants in this study, you may call or write:

Institutional Review Board
Eastern Illinois University
600 Lincoln Ave.
Charleston, IL 61920
Telephone: (217) 581-8576 Email: eiuirb@www.eiu.edu

You will be given the opportunity to discuss any questions about your rights as a research subject with a member of the IRB. The IRB is an independent committee composed of members of the University community, as well as lay members of the community not connected with Eastern Illinois University. The IRB has reviewed and approved this study.

I voluntarily agree to participate in this study as indicated by my signature below. I understand that I am free to withdraw my consent and discontinue my participation at any time. I have been given a copy of this form.

Please print your name:_____

_____ _____

Participating Teacher Signature Date

Appendix H

Teacher Demographic Questionnaire

Please complete the following to give us some information about you and your teaching experience.

Name: _____

1. Gender (please circle): Male Female

2. Highest Degree Earned (please write in):_____

3. Number of Years Teaching (please write in):_____

4. Do you have an ELL or bilingual teacher certification> (please circle all that apply):

No ELL Bilingual Both

5. Do you speak Spanish fluently? (please circle):

Yes No

6. I have training for teaching ELL students. (please circle all that apply):

No University Course In-service training

7. I would like more training on how to best teach ELL students. (Please circle one):

Yes No

Appendix I

Sample Curriculum-based Measurement (CBM) Reading Probe

"When I say 'Begin,' start reading aloud at the top of this page. Read across the page (demonstrate by pointing across page). Try to read each word. If you come to a word you don't know, I'll tell it to you. Be sure to do your best reading. Are there any questions?"

Second Grade 21

Riding the Bus to School 2.1

I ride a big yellow bus to school. I stand on the corner of our	15
street with my friends and we wait for the bus. My friend's	27
grandma waits with us. When it's raining, she holds an umbrella	38
to keep us dry. Sometimes when it's cold she brings us hot	50
chocolate.	51
I leave my house to walk to the bus stop after my parents go	65
to work. I watch the clock so I know when to leave. Sometimes	78
mom phones me from her office to remind me. Sometimes she	89
can't call, so I have to be sure to watch the time.	101
Our bus driver puts his flashing yellow lights on and then	112
stops right next to us. When he has stopped he turns the red	125
lights on so all the cars will stop. He makes sure we are all	139
sitting down before he starts to go. He watches out for us very	152
carefully.	153
My friends and I are the first ones to be picked up by the bus.	168
We like to sit right behind the bus driver and watch while he	181
picks up all the other kids. We know where everyone lives. By	193
the time we get to our school, the bus is almost full. Sometimes	206
the kids get noisy and the driver has to remind us to keep it	220
down. He says their noise makes it hard for him to concentrate	232
and drive safely. I am glad that our bus driver is so careful.	245

Appendix J

Integrity Checklist

Date: _____ **Time** (start and stop): _____

Teacher:_____ Observer:_____

Implementation **Ranking**: 1= Not well, 2= Average, 3=Very well

Introduction:

1. Introduce PALS session _____
2. Students transition to pairs quickly _____
3. Have a system implemented for easy access of student materials_____

Partner Reading:

1. Implementation time of 10 minutes _____
2. Follows script _____
3. Students switch roles after 5 minutes _____
4. Monitor students _____

Retell:

1. Implementation for 2 minutes _____
2. Follows script _____
3. Monitor Students _____